

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

ORDER NO. R2-2007-0067

SITE CLEANUP REQUIREMENTS

**PORT OF RICHMOND
VOPAK NORTH AMERICA, INC.
UNITED MOLASSES COMPANY**

**PORT OF RICHMOND TERMINAL 4
RICHMOND, CONTRA COSTA COUNTY**

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board), finds that:

1. **Site Location and Description:** Port of Richmond Terminal 4 (hereinafter referred to as the Site) is located in Contra Costa County on Point San Pablo, near the northwest tip of Richmond (see Figure 1). The Site is located on a peninsula, jutting into the San Francisco Bay. The City of Richmond lies to the east. The Site is owned by the Port of Richmond, and consists of two historic leaseholds adjacent to one another: the Vopak North America Inc. (Vopak) leasehold and the United Molasses Company leasehold. The Vopak leasehold consisted of approximately 9.5 acres of land used for a bulk oil storage facility and included a large quantity of aboveground tanks, related structures, and underground storage tanks. The United Molasses Company leasehold consisted of approximately six acres of land hydraulically downgradient and southwest of the Vopak leasehold used for bulk storage, handling, and distribution of agricultural products in aboveground, underground storage tanks, and related structures (see Figure 2).
2. **Site History:** Vopak: Vopak and its predecessors, which include Dorward & Sons and Paktak California, began operating a bulk oil storage facility on its leasehold at the Site in 1917. Vopak and its predecessors stored products including, but not limited to, lubricating oils, gasoline, diesel fuel, neutral oil 100 and 500, Grade 4 oil, distillate oil, No. 5 fuel oil, No. 6 fuel oil, jet fuel, polybutane, toluene, xylene, linear alkylbenzenes, alcohols, animal and vegetable oils, liquid fertilizers, and phosphoric acids. The products were contained in approximately 100 aboveground storage tanks with a capacity ranging from 1000 to 3.9 million gallons, with a total capacity of 21,000,000 gallons. Vopak ceased operations in 2000, and demolished and removed the tanks by February 2001. An undetermined number of

underground storage tanks were also located at the Site. Two former pipelines transported alkenes, propylene tetramer, and polymers from the neighboring Chevron Refinery to the Vopak facility. The pipelines were constructed, owned and operated by Chevron.

United Molasses Company: United Molasses Company and its predecessors, PM Ag and Pacific Molasses Company, began operating on their Site leasehold in 1936. PM Ag and Pacific Molasses Company were engaged in aboveground bulk storage, handling, and distribution of commercial agricultural products. Products included coconut oil, lignin liquor, linseed oil, cane molasses, blackstrap molasses, beet molasses, and tallow. Two boilers were used to heat and improve the transfer of products. The boilers were fired by diesel or light heating oil stored in two underground storage tanks (one was partially buried), one of unknown size and one with a capacity of approximately 8,000 gallons. United Molasses Company removed the two underground storage tanks and eight aboveground storage tanks formerly containing agricultural products in the 1980's and 1990's, and ceased facility operations in 1993.

3. **Regulatory Status:** This Site is currently not subject to a Board order. Site investigation has been required previously under Section 13267 of the Water Code.
4. **Purpose of Order:** This order establishes Site Cleanup Requirements (SCRs) for the Site, and includes provisions, specifications, tasks, and a schedule necessary to conduct additional Site investigations and to minimize the impacts of waste discharge into waters of the State. California Water Code Section 13304 authorizes the Board to issue orders requiring Dischargers to cleanup and abate waste where the dischargers have caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.
5. **Named Dischargers:** Vopak, United Molasses Company, and the Port of Richmond (collectively, Dischargers) are named as dischargers to this SCR. Although the Dischargers dispute the relative contribution and extent of contaminants from their respective sites and leaseholds to the overall Site contamination, consistent with State Water Resource Control Board policy, it is the policy of the Board not to allocate or apportion responsibility between the dischargers named to SCRs.

Vopak: Vopak is named as a discharger because it and its predecessors have caused or permitted waste to be discharged into the waters of the State and create, or threatens to create, a condition of pollution or nuisance. Specifically: (a) Vopak and its predecessors operated a leasehold from 1917 to 2000 during which time a large quantity of various chemicals and products were stored at Vopak's leasehold area; (b) Vopak is the successor in interest to those companies which operated a bulk oil storage facility at the Site; (c) chemicals consistent with Vopak's and its predecessors' operations (gasoline, diesel fuel, miscellaneous oils including

fuel oil, and linear alkylbenzenes) have been detected in soil and groundwater at the Site; (d) spill and leak reports have been filed for releases associated with the Vopak leasehold area of the Site, including: a 1985 United States Coast Guard notification of a discharge of oily storm water into the Bay from the Vopak 500-Series tank farm, a 1986 report documenting a leaking underground petroleum storage tank at the northern portion of the Vopak leasehold, and a 1995 National Response Center report of an "unknown oil" discharging from the hillside at the northern portion of the Vopak leasehold; (e) a 1968 site map indicates that an approximately 16,000 gallon fuel oil tank was located within the 500 series tank farm; (f) while tank storage records are very limited, a 1975 record indicates that millions of gallons of diesel and about 100,000 gallons of gasoline were stored at the Vopak leasehold; and, (f) technical reports document the presence of elevated concentrations of linear alkylbenzenes and/or petroleum hydrocarbons as gasoline, diesel, and oil in and downgradient of the area of Vopak's former storage tanks. See also Finding No. 7 below.

United Molasses Company: United Molasses Company is named as a discharger because it and its predecessors caused or permitted waste to be discharged into waters of the State and creates, or threatens to create, a condition of pollution or nuisance. Specifically: (a) United Molasses Company and its predecessors stored and used petroleum hydrocarbons on its leasehold area of the Site from 1936 to 1993; (b) United Molasses Company is the successor in interest to those companies which stored and used petroleum hydrocarbons at the Site; (c) consistent with United Molasses Company's operations, petroleum hydrocarbons, primarily as diesel and oil, have been detected in soil and groundwater at the Site; and d) two underground storage tanks on the former United Molasses leasehold have been identified as sources of releases as indicated by the presence of elevated levels of petroleum hydrocarbons, primarily as diesel and oil, in shallow soils and groundwater in the vicinity of the tanks in underground storage tank removal reports and site investigation reports. See also Finding No. 7 below.

Port of Richmond: The Port of Richmond is named as a discharger because it is the current landowner of the Site. Additionally, the Port of Richmond has been the owner of the Site since the early 1970's, a period during which Vopak and United Molasses Company and their predecessors leased the Site and caused the discharge of contaminants. The Port of Richmond acquired the Site from Vopak's predecessors. While the Port of Richmond as a landowner is properly named as a discharger, it will be required to implement the requirements of this SCR only if the Board through its Executive Officer finds that Vopak and United Molasses are not complying with the requirements of this SCR.

6. **Site Hydrogeology**: The Site is located on the hilly peninsula of the Potrero-San Pablo Ridge, which is composed of the steeply dipping Franciscan complex. The bedrock is composed of sandstone, shale, and conglomerate. Past sea level fluctuations resulted in a complex sedimentary sequence of interfingering estuarine and alluvial fan deposits overlying

the Franciscan Complex bedrock. The uppermost deposits, which consist of imported fill ranging from 3 to 30 feet deep overlies Bay Muds that consist of silt and silty clay with abundant plant matter. The Bay Muds overlie the Franciscan bedrock. The ground surface at the eastern/uphill portion of the Site consists of the Franciscan bedrock. The ground surface at the western/downhill portions of the Site consists of artificial fill. The Site is bounded by the Hayward Fault to the east and the San Pedro-San Pablo Fault to the west. Groundwater beneath the Site lies approximately 8-15 feet below the ground surface and generally flows to the west/southwest, and discharges into San Francisco Bay. The variable nature of the surface topography, subsurface materials, underground utilities, and surface drainage structures poses challenges to predicting with certainty the movement of surface water and groundwater at the Site and the migration of contaminants in water.

7. **Remedial Investigations:** Remedial investigations were conducted at the Site by Vopak, United Molasses Company, and the Port of Richmond in 2001-2003. Additional site investigations are required by this Order. Site groundwater and soil has been impacted by gasoline, diesel, and oil range petroleum hydrocarbons, as well as linear alkylbenzenes, a surfactant used for the production of detergents. The 2001 to 2003 Site investigations included soil and groundwater sampling and trenching throughout the site and adjacent beach areas. The investigations indicate that petroleum hydrocarbon contamination is present in large areas of the Site, including the former United Molasses and Vopak leasehold areas. The most severe contamination is free-phase petroleum hydrocarbons found downgradient of the Vopak 500-series tank farm, within the former United Molasses leasehold, extending from the area of Western Drive to the beach area where petroleum seepage was last observed in 2001 (see Figure 2). During the investigations conducted in 2002 it was determined that a significant leakage of water was occurring from an East Bay Municipal Utility District (EBMUD) water line beneath the Vopak 500-series tank farm, which was subsequently repaired.

A summary of the most significant site impacts documented in the 2001 to 2003 investigation reports are as follows:

United Molasses Company Leasehold Soil and Groundwater Impacts:

Separate-phase petroleum product is found throughout the United Molasses Company leasehold. The highest dissolved petroleum concentrations are found near the two former fuel tanks on the United Molasses leasehold. Maximum concentrations of petroleum hydrocarbons detected in soil are 94 ppm TPH diesel and 180 ppm TPH oil in boring VB-12. Maximum concentrations of petroleum hydrocarbons detected in groundwater are 2300 ppb TPH diesel and 580 ppm TPH oil in VB-12. Linear alkylbenzenes, which originated from Vopak's 500 series tank farm, have been identified, and are commingled with other product but not quantified within the United Molasses leasehold.

Vopak Leasehold Soil and Groundwater Impacts:

Vopak 500-Series Tank Area: The separate-phase petroleum product found underlying the majority of the former United Molasses leasehold is not observed immediately underlying the Vopak 500-Series tank area. However, the product is found immediately downgradient of the tanks in the area, and upgradient of United Molasses source areas in borings B-18, B-25, VB-1, VB-5, VB-13A, VB-14, and wells MW-2 and MW-4, located along Western Drive.

High levels of petroleum hydrocarbon contamination have been detected in soil and groundwater in Vopak's 500-Series tank area. In soil, petroleum hydrocarbon concentration has been detected at maximum concentrations of 3100 ppm TPH diesel in well VMW-3, 28 ppm TPH gas in boring VMW-2, and 5300 ppm TPH oil in well VMW-1. Dissolved groundwater contamination is found in monitoring wells within the 500-Series tank area at maximum concentrations of up to 4100 ppb TPH gas in well VMW-2, and 270 ppb TPH diesel in well VMW-3. Linear alkylbenzenes, which originate from Vopak's 500 series tank farm and potentially other areas of the Vopak leasehold, have been identified and are commingled with other product, but not quantified. The linear alkylbenzenes have migrated in groundwater and have impacted the downgradient United Molasses site.

Northern Vopak Leasehold Area: An area of soil and groundwater contamination has been identified in the northern area of the Site on the former Vopak leasehold, north of the former Vopak warehouse. The petroleum hydrocarbon contamination in soil and groundwater in the northern area of the Site is distinct from the soil and groundwater contamination identified in the southern area. In soil in the former northern Vopak leasehold area, petroleum hydrocarbons have been detected at maximum concentrations of 27 ppm TPH gas, 7100 ppm TPH diesel, and 7200 ppm TPH oil in soil boring VB-21. Separate-phase petroleum hydrocarbons has been detected in borings B-38 and VB-20. Dissolved groundwater contamination is reported at maximum concentrations of 250 ppb TPH gas and 5,900 ppb TPH diesel in boring VB-20. No linear alkylbenzenes were found commingled within area of elevated petroleum hydrocarbon concentrations in soil or groundwater in the northern area of the Site.

8. **Interim Remedial Measures:** Interim remedial measures at the Site include removal of the sources and potential sources of contamination, including the underground and aboveground storage tanks and associated piping, at the former Vopak and United Molasses leaseholds. The beach seep, which occurred in 2001 when the storage tank facilities at the Vopak site were removed, ceased after an EBMUD water line leak running through the Vopak leasehold was repaired.
9. **Basin Plan:** The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Board's master water quality control planning document. It designates beneficial uses and

water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan was duly adopted by the Board and approved by the State Water Resources Control Board, U.S. EPA, and the Office of Administrative Law where required.

The potential beneficial use of groundwater beneath the Site includes:

- a. Municipal and domestic water supply
- b. Industrial process water supply
- c. Industrial service water supply
- d. Agricultural water supply
- e. Freshwater replenishment to surface waters

At present, there is no known existing use of groundwater underlying the Site for the above purposes.

The existing beneficial uses of waters of San Francisco Bay includes:

- a. Municipal and domestic supply
- b. Industrial process supply or service supply
- c. Water contact and non-contact recreation
- d. Wildlife habitat
- e. Cold freshwater and warm freshwater habitat
- f. Fish migration and spawning
- g. Navigation
- h. Estuarine habitat
- i. Shellfish harvesting
- j. Preservation of rare and endangered species

10. **State Water Board Resolution No. 92-49:** State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this cleanup and requires cleanup and abatement of the effects of a discharge in a manner that promotes attainment of either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored. Cleanup to levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not result in water quality less than prescribe in the Basin Plan and policies adopted by the State and Regional Water Boards. This Order does not yet prescribe clean-up levels, but requires the Dischargers to investigate whether cleanup to background levels is feasible, as described in Provision B.5.
11. **Preliminary Cleanup Goals:** The Dischargers will need to make assumptions about future cleanup standards for soil and groundwater, in order to determine the necessary extent of remedial investigation, interim remedial actions, and the draft remedial action plan. Pending

the establishment of Site-specific cleanup standards, the following preliminary cleanup goals shall be used for these purposes:

- a. Groundwater: Applicable water quality objectives (e.g., lower of primary (toxicity) and secondary (taste and odor) maximum contaminant levels, or MCLs) or, in the absence of a chemical-specific objective, equivalent drinking water levels based on toxicity and taste and odor concerns.
 - b. Soil: Applicable screening levels as compiled in the Board's draft Environmental Screening Levels (ESLs) document or its equivalent. Soil screening levels are intended to address a full range of exposure pathways, including direct exposure, indoor air impacts, nuisance, and leaching to groundwater.
12. **Cost Recovery:** Pursuant to California Water Code Section 13304, the Dischargers are hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order.
 13. **CEQA:** This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.
 14. **Public Notice:** The Board has notified the Dischargers and interested agencies and persons of its intent to under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
 15. **Public Hearing:** The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the Dischargers, in accordance with Finding No. 5, shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous substances in a manner which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.

2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of wastes or hazardous substances are prohibited.

B. TASKS

1. WORKPLAN TO EVALUATE CURRENT SITE CONDITIONS

COMPLIANCE DATE: January 4, 2008

Submit a workplan, acceptable to the Executive Officer, to evaluate current surface water and groundwater conditions at the Site, including, at a minimum: the extent of free and dissolved petroleum hydrocarbon product, the pathways and migration rates of contaminants in surface water, groundwater, soil, and bedrock, and, the current conditions of beach areas where historic releases have been observed. The workplan shall provide for resampling of all existing groundwater monitoring wells. The workplan shall specify investigation methods and a proposed time schedule for implementation of the workplan.

2. CURRENT SITE CONDITIONS REPORT

COMPLIANCE DATE: May 1, 2008

Submit a technical report, acceptable to the Executive Officer, documenting completion of necessary tasks identified in the Task 1 workplan. The report shall describe the current Site conditions based on an evaluation of available site data. The report shall also propose additional investigation and a time schedule for implementation, if necessary, to provide additional data necessary to define the extent of surface water and groundwater impacts at the Site.

3. WORKPLAN FOR INTERIM REMEDIAL ACTIONS

COMPLIANCE DATE: July 1, 2008

Submit a workplan, acceptable to the Executive Officer, which proposes interim remedial actions for the Site. The interim remedial actions shall include the removal of free petroleum product from groundwater, elimination and prevention of the discharge of free or dissolved product into the bay, and remediation of any remaining

impacts to beach areas and bay waters. The workplan shall specify the methods of remediation and include a proposed time schedule.

4. **REPORT DOCUMENTING IMPLEMENTATION OF INTERIM REMEDIAL ACTIONS**

COMPLIANCE DATE: December 1, 2008

Submit a technical report, acceptable to the Executive Officer, documenting implementation of interim remedial actions proposed in the Task 3 workplan. The report shall describe any variation with the interim remedial actions proposed in Task 3.

5. **WORKPLAN FOR FINAL REMEDIAL MEASURES**

COMPLIANCE DATE: July 1, 2009

Submit a technical report, acceptable to the Executive Officer, evaluating the performance of interim remedial measures on both free and dissolved groundwater and surface water contamination at the Site. The report shall propose final cleanup plan which includes, at a minimum, the following:

- a. Results of any additional investigation
- b. Evaluation of the installed interim remedial actions
- c. Risk assessment for current and post-cleanup exposures
- d. Proposed numeric Site-specific final cleanup standards for soil and groundwater
- e. Feasibility study evaluating and proposing final remedial actions
- f. Implementation tasks and time schedule

Item e shall include projections of cost, effectiveness, benefits, and impact on public health, welfare, and the environment of each alternative action.

Item e shall consider the preliminary cleanup goals for soil and groundwater identified in Finding 11 and shall address the attainability of background levels of water quality (see finding 10).

6. **SITE MONITORING PLAN**

COMPLIANCE DATE: December 1, 2007

Submit a workplan, acceptable to the Executive Officer, proposing a Site monitoring plan which will provide hydrological and water quality data necessary to evaluate Site

conditions and the performance of interim and final remedial actions. The workplan shall specify wells to be monitored, monitoring frequency, and analytical methods.

7. **Delayed Compliance:** If the Dischargers are delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the dischargers shall promptly notify the Executive Officer and the Board may consider revision to this Order.

C. PROVISIONS

1. **No Nuisance:** The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in California Water Code Section 13050(m).
2. **Good Operation and Maintenance (O&M):** The Dischargers shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.
3. **Cost Recovery:** The Dischargers shall be liable, pursuant to California Water Code Section 13304, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the site addressed by this Order is enrolled in a State Water Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the Dischargers over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.
4. **Access to Site and Records:** In accordance with California Water Code Section 13267(c), the Dischargers shall permit the Board or its authorized representative:
 - a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
 - b. Access to copy any records required to be kept under the requirements of this Order.
 - c. Inspection of any monitoring or remediation facilities installed in response to this Order.

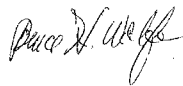
- d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the Dischargers.
 - 5. **Self-Monitoring Program:** The Dischargers shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.
 - 6. **Contractor / Consultant Qualifications:** All technical documents shall be signed by and stamped with the seal of a California registered professional geologist, a California certified engineering geologist, or a California registered civil engineer.
 - 7. **Lab Qualifications:** All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/ quality control (QA/QC) records for Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g., temperature).
 - 8. **Document Distribution:** Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the following agencies:
 - a. City of Richmond, Richmond Community Redevelopment Agency
 - b. Contra Costa County, Department of Environmental Health
- The Executive Officer may modify this distribution list as needed.
- 9. **Reporting of Changed Owner or Operator:** The Dischargers shall file a technical report on any changes in Site occupancy or ownership associated with the property described in this Order.
 - 10. **Reporting of Hazardous Substance Release:** If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the Dischargers shall report such discharge to the Board by calling (510) 622-2369 during regular office hours (Monday through Friday, 8:00 to 5:00).

A written report shall be filed with the Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.

11. **Periodic SCR Review:** The Board will review this Order periodically and may revise it when necessary. The Dischargers may request revisions and upon review the Executive Officer may recommend that the Board revise these requirements.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on September 12, 2007.



Digitally signed by
Bruce Wolfe
Date: 2007.09.21
11:32:28 -07'00'

Bruce H. Wolfe
Executive Officer

Figures: Figure 1 – Site Location Map: Page 13
 Figure 2 – Site Map: Page 14

Attachment: Self-Monitoring Program: Page 15

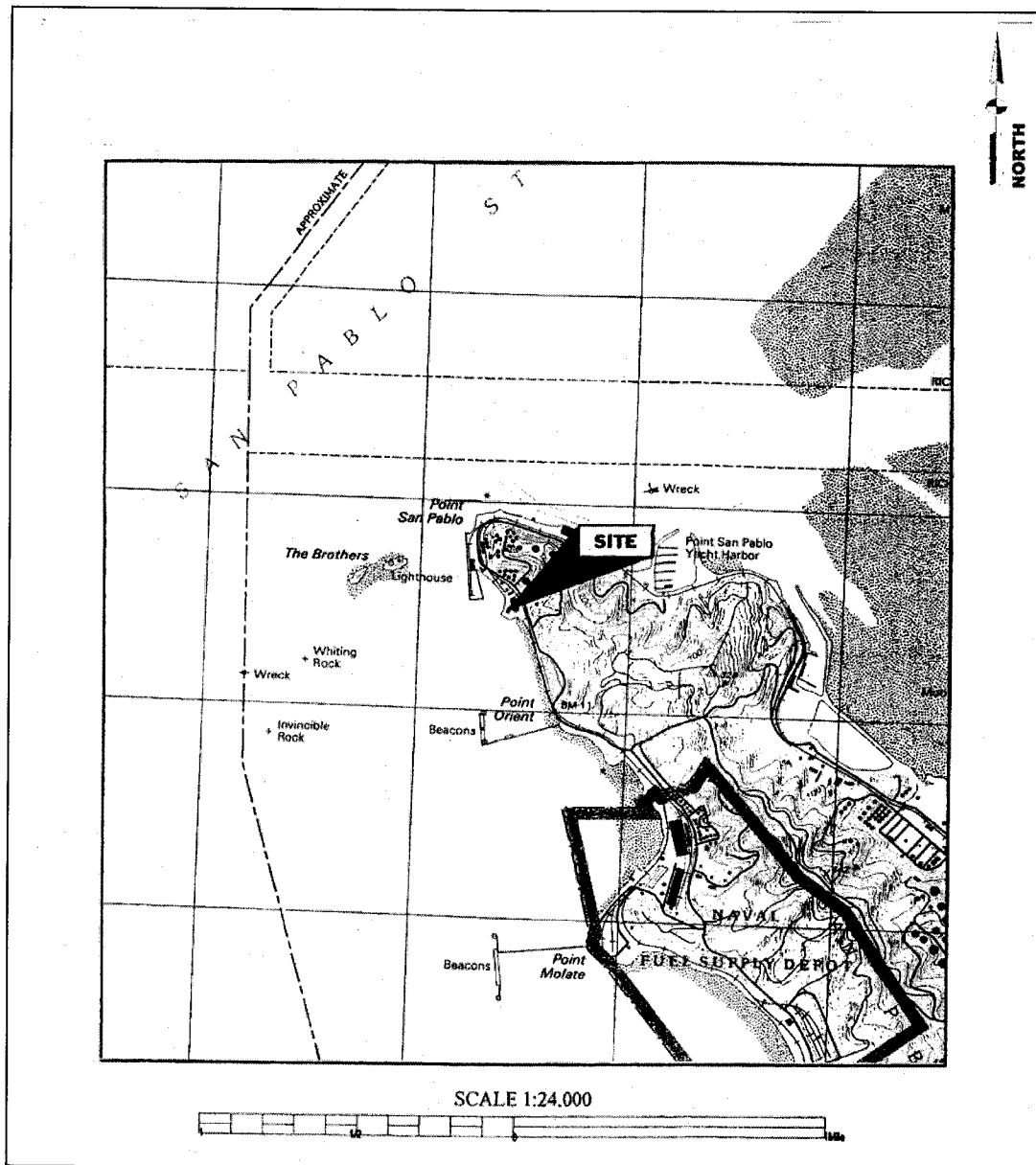
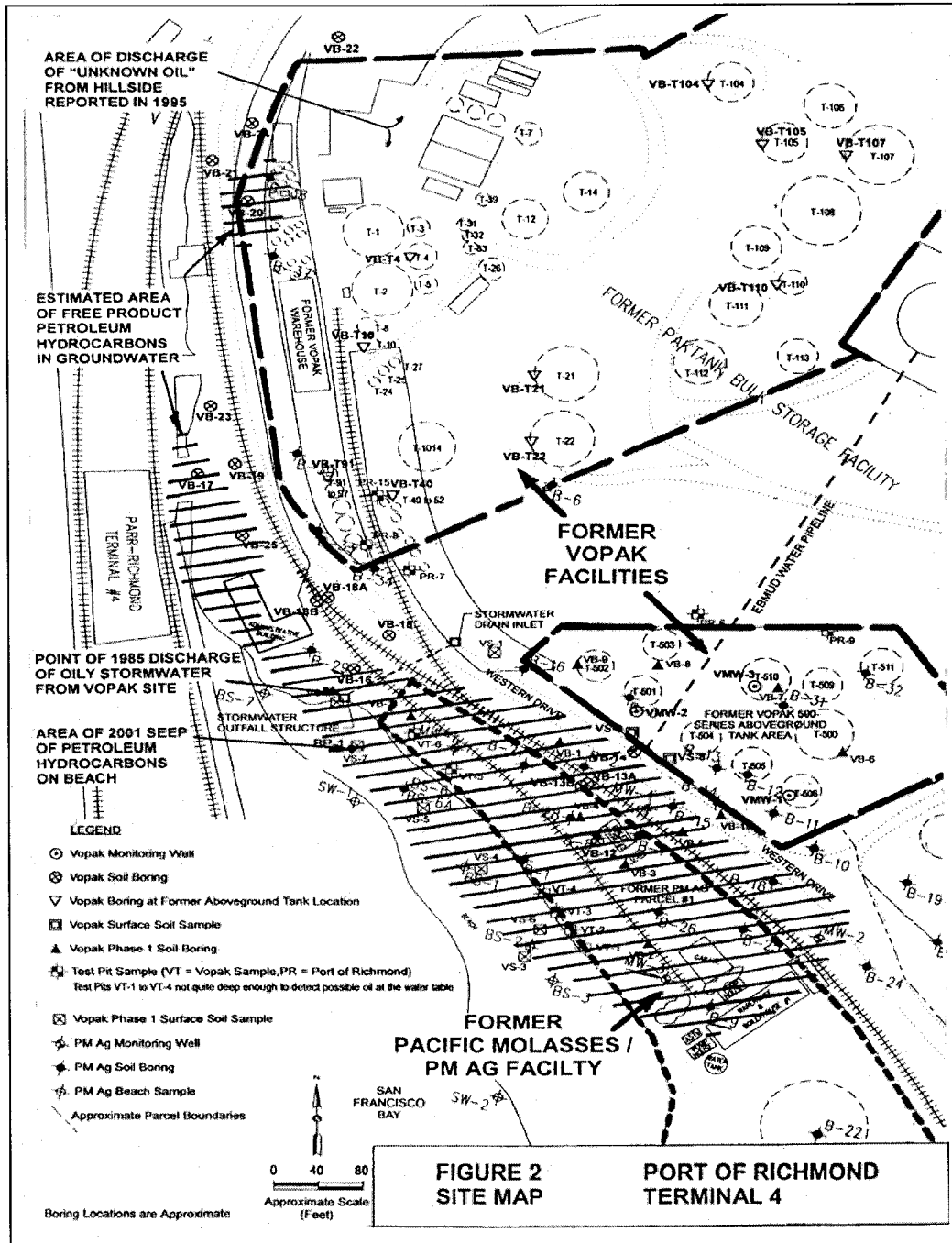


Figure 1
Site Location Map



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

**PORT OF RICHMOND
VOPAK NORTH AMERICA, INC.
UNITED MOLASSES COMPANY**

**PORT OF RICHMOND TERMINAL 4
RICHMOND, CONTRA COSTA COUNTY**

for the property located at

**PORT OF RICHMOND TERMINAL 4
RICHMOND, CONTRA COSTA COUNTY**

1. **Authority and Purpose:** The Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Board Order No. R2-2007-0067 (site cleanup requirements).
2. **Monitoring:** The Dischargers shall measure groundwater elevations and shall collect and analyze representative samples of groundwater quarterly in all existing monitoring wells. Analytes shall be analyzed utilizing the following EPA laboratory analytical methods:

Analyte	EPA Method
TPH gas	5030 or equivalent
TPH diesel	3510 or equivalent
BTEX	8260 or equivalent
MTBE and other fuel oxygenates	8260 or equivalent

The Dischargers shall sample any new monitoring or extraction wells quarterly and analyze groundwater samples for the same constituents as above table. The Dischargers may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

3. **Quarterly Monitoring Reports:** The Dischargers shall submit quarterly monitoring reports to the Board no later than 30 days following the end of the quarter (e.g., report for first quarter of the year due April 30). The first quarterly monitoring report shall be due on January 30, 2008. The reports shall include:
- a. **Transmittal Letter:** The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the Dischargers' principal executive officer or his/her duly authorized representative, and shall include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.
 - b. **Groundwater Elevations:** Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map shall be prepared for each monitored water-bearing zone. Historical groundwater elevations shall be included in the fourth quarterly report each year.
 - c. **Groundwater Analyses:** Groundwater sampling data shall be presented in tabular form, and an isoconcentration map shall be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used, detection limits obtained for each reported constituent, and a summary of QA/QC data. Historical groundwater sampling results shall be included in the fourth quarterly report each year. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases. Supporting data, such as lab data sheets, need not be included (however, see record keeping - below).
 - d. **Groundwater Extraction:** If applicable, the report shall include groundwater extraction results in tabular form, for each extraction well and for the Site as a whole, expressed in gallons per minute and total groundwater volume for the quarter. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems (e.g., soil vapor extraction), expressed in units of chemical mass per day and mass for the quarter. Historical mass removal results shall be included in the fourth quarterly report each year.
 - e. **Status Report:** The quarterly report shall describe relevant work completed during the reporting period (e.g., site investigation, interim remedial measures) and work planned for the following quarter.

4. **Violation Reports:** If the Dischargers violate requirements in the Site Cleanup Requirements, then the Dischargers shall notify the Board office by telephone as soon as practicable once the Dischargers have knowledge of the violation. Board staff may, depending on violation severity, require the Dischargers to submit a separate technical report on the violation within five working days of telephone notification.
5. **Electronic Reporting:** In addition to print submittals, all reports submitted pursuant to this Order must be submitted as electronic files in **PDF format**. The Board has implemented a document imaging system, which is ultimately intended to reduce the need for printed report storage space and streamline the public file review process. Documents in the imaging system may be viewed, and print copies made, by the public, during file reviews conducted at the Board's office. PDF files can be created by converting the original electronic file format (e.g., Microsoft Word) and/or by scanning printed text, figures & tables. Data tables containing water level measurements, sample analytical results, coordinates, elevations, and other monitoring information shall also be provided electronically in **Microsoft Excel[®] or similar spreadsheet format** to provide an easy to review summary, and to facilitate data computations and/or plotting that Board staff may undertake during their review. Data tables submitted in electronic spreadsheet format will not be included in the case file for public review. All electronic files must be submitted on CD or diskette and included with the print report.
6. **Other Reports:** The Dischargers shall notify the Board in writing prior to any Site activities, such as construction or underground tank removal, which have the potential to cause further migration of contaminants or which would provide new opportunities for Site investigation.
7. **Record Keeping:** The Dischargers or their agents shall retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination and shall make them available to the Board upon request.
8. **SMP Revisions:** Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her own initiative or at the request of the Dischargers. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.